

REMARKS

Claims 1-8 are pending. Claims 1 and 5, the only independent claims, have been amended.

In the most recent Office Action, claims 1-8 were rejected under 35 U.S.C. § 103 over U.S. Patent 6,493,379 (Tanaka) in view of U.S. Patent 6,064,338 (Kobayakawa et al.). Applicant submits that the amended independent claims are patentable over the cited references for at least the following reasons.

Amended independent claim 1 recites, *inter alia*, a first step of adaptively updating antenna weight based on minimum mean squared error (MMSE) control according to signals received by the respective antenna elements and an error signal obtained from the desired signal corrected based on the transmission channel estimation, and a second step of correcting the antenna weight obtained in the first step using a direction vector to maintain a correlation between the antenna weight and the direction vector constant.

As understood by Applicant, the cited art neither teaches nor suggests the above features of amended independent claim 1.

In particular, it is conceded in the Office Action that Tanaka does not teach the recited constraint process. Kobayashi was cited as allegedly teaching the recited constraint process.

However, Kobayashi shows a method for calculating an array weight directly using a directional constraint vector and a covariance matrix, which is shown in Figure 8B and Step 206 in Figure 9. This method corresponds to the known directional constraint minimum power (DCMP) algorithm. However, as is even more clearly recited in the amended independent claims, the independent claims utilize adaptive

update algorithms, in which directional constraint processing is performed on an array weight calculated by minimum mean squared error (MMSE) control, which realizes more stability and subordinacy.

For at least this reason, amended independent claim 1 is believed clearly patentable over the cited references. Amended independent claim 5 recites a similar feature and is believed patentable for at least the reasons discussed above in connection with amended independent claim 1.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Dated: February 21, 2008

Respectfully submitted,

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